CrossTalk

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PRO-ACT

A Base-level Pollution Prevention Resource sponsored by HQ Air Force Center for Environmental Excellence

Pollution Prevention Initiatives

Partners in Flight

Partners in Flight (PIF) is a collaborative organization; members include a long list of non-profit partners, industry leaders, and local, state, and federal government groups (including the Department of Defense), all with an interest in preserving and protecting avian wildlife. PIF concentrates on monitoring, research, and education to accomplish the mission of bird conservation.

Holloman AFB has earned recognition from PIF for their exceptional contribution to the conservation of migratory bird habitat. Additional habitat for migratory birds that frequent Lake Holloman Wildlife Refuge Area was created through the installation's effort to increase and improve their total wetland area.

Among the birds that call Holloman AFB home, for at least a portion of the year, are the Western Snowy Plover and American Avocet, both listed as PIF Priority Species. The habitat is also ideal for a variety of other birds and waterfowl, including Snowy Egrets, Green Heron, and Black-necked Stilt.

The increase in habitat area was not the only contributor to their recent recognition, Holloman AFB also requested a research study on the wetland's invertebrate population and has been instrumental in generating interest in PIF from the surrounding community. Community involvement includes graduate and undergraduate research projects, as well as Eagle Scout projects, and public education endeavors.

To learn more about Partners in Flight check out the Conference Corner for the upcoming Third International Partners in Flight Conference, or visit their website at http://www.pwrc.nbs.gov/pif/

What's Inside . . .

Building Recycling

Installations with old buildings scheduled for demolition may have another option. Many old military buildings contain millions of board feet of usable lumber of various types, which can be reclaimed and sold. In some instances, doors and windows can be reused by any number of agencies authorized to receive excess military property, such as Habitat for Humanity.

Another option is to donate old buildings no longer needed, but in good condition to reuse elsewhere. This can save millions of dollars in demolition and disposal costs. The Department of Defense (DoD) has already donated over 650 excess buildings that otherwise would have been demolished.

Consider the above options when making the decision to replace or remove old buildings. The donation of these buildings to a local agency eliminates the cost of demolition and disposal of the waste. In addition, the "deconstruction" of buildings to remove all usable

timber and other materials, can reduce demolition and disposal costs, and be a source of income. For more information contact PRO-ACT at DSN 240-4214.

We Want Your Input!

PRO-ACT is interested in your comments regarding environmental success stories, new technologies, best management practices, and fact sheet topic ideas. We are also interested in any documents, videos, and base environmental plans that could be included in our technical library. Please contact us at DSN 240-4214 or by e-mail at pro-act@brooks.af.mil

Notice

Fact Sheet Updates

In October, PRO-ACT revised the following fact sheets. To obtain a copy of these items, please contact us at DSN 240-4214 or visit our website at http://www.afcee.brooks.af.mil/pro-act/pro-acthome.asp

- Management and Equipment Evaluation Program (MEEP)
- Air Force Environmental and Civil Engineering Awards

CrossTalk

CrossTalk is published monthly by PRO-ACT as a service of the Environmental Quality Directorate, Headquarters Air Force Center for Environmental Excellence (HQ AFCEE/EQ), Brooks Air Force Base, Texas.

Contents of CrossTalk are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense or the Department of the Air Force. Reference to any commercial product or company does not imply endorsement by the government or any of its agencies.

Readers may submit articles or photographs for publication. Material will be edited; however, to conform to PRO-ACT and Air Force guidelines.

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ECAMP BMP Update

The Air Force Environmental Compliance Assessment and Management Program (ECAMP) is a tool designed to assist Air Force installations and organizations as they assess their compliance with various federal, state, local, and Air Force environmental requirements. Aside from noting potential program non-compliances, ECAMP reports also identify positive findings or Best Management Practices (BMPs) that demonstrate a standard of excellence or an achievement considered best-in-class. The July 2000 ECAMP Final Report for Offutt AFB contained several positive findings, or BMPs, one of which is highlighted here from the Occupational Health protocol.

Occupational Health Education and Training Program
Offutt AFB, Nebraska

The Bioenvironmental Engineering (BEE) Flight at Offutt AFB, NE has gone above and beyond their requirements in an effort to educate base population on occupational health issues and to motivate industrial shop personnel on Occupational, Safety, and Health Administration (OSHA) compliance issues. They have excelled in protecting personnel in the workplace and community environments through one-of-a-kind, forward-looking occupational surveillance programs.

One initiative was an effort to increase awareness of occupational health programs through community outreach. Specifically, the BEE Flight hosted several training symposiums to increase awareness on issues such as ergonomics, confined space, hazard communications, and weapons of mass destruction. The symposiums were videotaped and are available to interested workers or work centers that were unable to attend.

A second initiative was to publish a quarterly newsletter (example available from PRO-ACT) to the base population addressing occupational health issues, including some of the finer points of the regulations to motivate industrial shop personnel toward achieving OSHA compliance. Electronic copies of the newsletter are forwarded to all work centers on the installation, and hard copies are provided to Commanders during the quarterly Combined Safety Council meetings.

The third initiative involved the development and implementation of a "Wing Shop of the Quarter Program" to formally recognize and reward industrial work centers for achieving excellence in occupational health programs. Using criteria outlined in Air Force instructions, manuals, and OSHA guidelines, BEE Flight personnel assess work center programs during routine occupational surveillance visits. Prior to the assessment, BEE Flight personnel provide work center supervisors with a pre-survey letter and program checklists (example available from PRO-ACT) to help them prepare for the visit. At the end of each quarter, the shop with the best overall score receives a uniquely designed trophy presented by the 55th Wing Commander at the Combined Safety Council meeting.

By encouraging work center representation, as well as teaming with the Occupational Health Physician to brief work centers on their concerns, the BE Flight has demonstrated time and again that healthy work centers and productive workers are their priority. Having forward-looking, creative, problem solving personnel is the key to the Offutt BEE Flight being one of the best known, visible, and successful flights in the 55th Wing. For further information on the Occupational Health Education and Training Program at Offutt AFB, contact LtCol. Maria Reiter or Lt. Brian Christ, Bioenvironmental Engineering Flight, 55 AMDS/SGPB, DSN 272-5614, or by e-mail at sgpb@offutt.af.mil.

Regulatory Alert!

MREs Create Hazardous Waste

U.S. Airmen are routinely issued field rations, Meals Ready-to-Eat (MRE), which contain a flameless ration heater (FRH). In May 1999 the U.S. Environmental Protection Agency (EPA) placed discarded, unused FRHs in its "reactive" category, since they contain compounds that heat up when activated by water.

A recent notice of violation (NOV) resulted from an incident in which unused FRHs turned up in a shipment of municipal solid waste (MSW) destined for a local landfill. Installations where unused FRHs are generated must establish procedures to ensure they are not thrown into trash designated as MSW. This is especially important during field training exercises, when large numbers of unused FRHs may be produced.

As a short term measure installations may affix labels to MREs advising users not to place them in the MSW waste stream. In addition, a method of collecting all FRHs must be established. Once collected, the unused FRHs can be segregated and set aside for proper disposal. Most Defense Reutilization and Marketing Offices (DRMOs) will accept the unused FRHs, which can then be returned to the manufacturer, sold, or donated to qualified agencies.

A long-term solution to the problem of reactive FRHs is being sought by the Soldier Systems Center. Two new ration heaters that do not release a flammable gas are being developed and rigorously tested to ensure they will not cause future environmental problems or compliance issues. Both new heaters are performing well at this time, and users have found them to be acceptable replacements for the FRHs.

Note: Used FRHs don't pose the same problems as unused FRHs. At the end of the heating cycle, all that remains of an FRH are inert substances such as cardboard, a polyethylene bag, and magnesium hydroxide, which have no adverse impact on human health or the environment and can be placed in the trash.

(Extracted from the U.S. Army Environmental Center "Environmental Update," Vol. 13, No. 3, Summer 2001.)

New Tools and Guidance

Cost Compendium Released

The U.S. EPA has released the "Remediation Technology Cost Compendium, Year 2000." Six technologies frequently implemented in remediation actions that fall under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA) are featured in the compendium.

The compendium is intended to provide a generalized cost comparison for remediation technologies frequently implemented:

- bioremediation;
- thermal desorption;
- soil vapor extraction;
- on-site incineration;
- permeable reactive barriers; and
- groundwater pump-and-treat systems.

Many outside factors may affect the cost of a remediation project. The compendium explores some contributing factors such as the quantity of contaminant involved, site specific environmental concerns, and soil types.

The Headquarters Air Force Center for Environmental Excellence was a contributor to the compendium, along with the Federal Remediation Technologies Roundtable, the U.S. Department of Energy's Los Alamos National Laboratory, and the U.S. Army Corps of Engineers Hazardous, Toxic and Radioactive Center for Expertise, et al. Download the compendium from the web at http://www.clu-in.org/new1.cfm or contact PRO-ACT for a copy.

Remediation Reference

The Federal Remediation Technologies Roundtable (FRTR) has posted the "Remediation Technologies Screening Matrix and Reference Guide," Version 3.0. The guide was compiled using the efforts of several government agencies, enabling users to review information on presumptive remedies and innovative remediation technologies aiding in environmental restoration efforts.

The extensive web-document contains information on eight contaminant groups, with remediation technologies being presented for each group. It also offers a discussion on the cost effectiveness of restoration measures, handling or safety concerns, and methods of excavation for:

- Nonhalogenated Volatile Organic Compounds
- Halogenated Volatile Organic Compounds
- Nonhalogenated Semivolatile Organic Compounds
- Halogenated Semivolatile Organic Compounds
- Fuels
- Inorganics
- Radionuclides
- Explosives

Multiple methods of presentation ensures the user is able to locate terms by direct search, synonym search, through the site map, or by using the screening matrix. The site map offers a convenient look at the relationships that exist in the information, and may help the user determine where to go next, and gives a simple overview of the data process. Synonym search capabilities allow an easy cross reference, with a link to information on the new term.

Treatment Processes, descriptions of technology available, and reference information are all provided in great detail. Access this resource from the FRTR website at http://www.frtr.gov/matrix2. For additional information on any remediation technology presented in the guide, contact PRO-ACT at DSN 240-4214.

Re-Refined Oil Resource

The Office of the Federal Environmental Executive has a website listing state-by-state resources for re-refined oil. The numerous locations within the state of California are listed first, followed by an alphabetical list by state.

Re-refined oil is oil that has been used, and then "re-refined" to remove the impurities and contaminants that may accumulate in oil during regular engine use. The U.S. EPA has concluded re-refined oil is equivalent to new oil, and in some cases may even outperform new oil. Re-refined oil must meet the standards of the three major U.S. automobile manufacturers (Ford, General Motors, and Chrysler) and is expected to grow in popularity of use.

U.S. Air Force transportation personnel are encouraged to participate in this important affirmative procurement initiative. To view the list of state resources for re-refined oil visit http://www.ofee.gov.

In Our Customer's Own Words…

"Outstanding, as usual! What a convenience. Your quick response and the information included will eliminate a lot of confusion. The 'Excellent' ratings I gave you might sound like empty praise, but I honestly appreciate the service you offer. Thanks once again."

SSgt Link Gross
128 AGS/LGGS
Milwaukee
ANGB, WI

Conference Corner

"The Odyssey Continues…"

The U.S. EPA Region III Chemical Emergency Preparedness and Prevention Conference takes place 10-13 December 2001 at the Marriott Waterfront Hotel in Baltimore, MD. The conference includes professionals from emergency management, hazardous materials response, health-science, counter-terrorism, law enforcement, transportation, power and utility, and other related fields. The conference offers workshops and training programs in addition to technical sessions and exhibits.

The conference agenda is available on-line. Registration is available on-line, or by mail or fax. For more information send an e-mail to the conference administrator, at kharris @genphysics.com or visit the conference website at http://www.2001conference.org/.

Electronic Transportation Conference

The Electric Vehicle Association of the Americas (EVAA) is hosting the Electric Transportation Industry Conference on 11-14 December 2001 in Sacramento, California. The conference is an expansion of the previously held series of North American Electric Vehicle and Infrastructure conferences.

The conference features technical sessions, workshops, an exhibition area, and an optional field trip to the California Fuel Cell Partnership. Technical sessions already in place include focused policy discussions, and a success story presentation on the implementation of Electronic Vehicles by a representative from Luke Air Force Base.

Registration is available on-line, by fax or you may register on-site for the conference. Additional information may be obtained at http://www.evaa.org/evaa/ETI2001_jsfixed/index.htm.

NRC Conference Re-Scheduled

The National Recycling Coalition (NRC) postponed its annual conference. The conference will now take place 13-16 January 2002 at the Washington State and Trade Center in Seattle, WA.

Despite the re-scheduling, conference agenda items will remain the same and the conference will still offer technical sessions, workshops, roundtable discussions, an exposition hall, and technical tours. Attendees are expected to include recycling coordinators from the public and private sectors, state and federal employees, non-profit representatives and industry leaders. For more information access http://www.nrc-recycle.org/programs/congress/expo.htm.

Tri-Service Corrosion Conference

The Tri-Service Corrosion Conference will be held 14-18 January 2002, at La Mansion del Rio Hotel, San Antonio, TX. Participants will have the opportunity to interact and discuss the latest issues and technologies, and their military applications. The conference seeks to increase awareness of DoD corrosion control and prevention efforts and promote novel and innovative solutions to DoD corrosion problems. Conference attendance is limited to U.S. government personnel, DoD contractors/grantees, or those with official approval of a service representative. Air Force related personnel seeking official approval should contact Major Robert Mantz at robert.mantz@afosr.af.mil. For more conference information visit the web at https://www.ues.com/afosrmeetings/triservice/.

Partners in Flight Conference

The Third International Partners in Flight Conference: A Workshop on Bird Conservation Implementation and Integration will be held 20-24 March 2002 at the Asilomar State Park Conference Center in Monterey, California. Representatives from the 16 federal agency members, as well the numerous state and local government agencies, non-profit and industry partners will be in attendance.

Technical and special sessions will cover case studies, species habitat and monitoring, community outreach, education, economics, international cooperative projects, research projects and applications, the interface of biology and politics, and strategic planning. Registration is being accepted on-line or by mail, access http://www.prbo.org/PIF/NPIF2002.htm for more information.

AWMA Conference

The Air and Waste Management Association's (AWMA) 95th Annual Conference and Exhibition will be held in Baltimore, MD, 23-27 June 2002. More than 5,000 environmental management professionals from around the world are expected to attend this event. The conference provides a forum for education and crossfeed among private industry, environmental pollution control officials, and federal agencies covering pollution prevention and control technology.

Details about technical sessions are now available; however, registration is not yet open, so please continue to check the conference website for the latest information at http://www.awma.org.

Technical Inquiry Roundup

TI 23057 - Solid Waste Management Plan

By Pilar Castaneda

PRO-ACT conducted research in response to a customer's request for information concerning the review and update of the solid waste management plan (SWMP). Specifically, the customer wanted answers to the following questions:

1. How often is the SWMP required to be updated?

2. Is Air Force Regulation (AFR) 91-8, "Solid Waste Management," May 1990, as referenced in Air Force Instruction (AFI) 32-7042, "Solid and Hazardous Waste Compliance," 12 May 1994, still current?

We reviewed AFI 32-7042, Chapter 2, "Hazardous Waste Program," Section 2.2, "Management Plan," Subsection 2.2.2, which states in part, "the Environmental Protection Committee (EPC) must update and approve the plan annually."

We then contacted Ms. Nancy Carper, USAF Integrated Solid Waste Manager, Headquarters Air Force Center for Environmental Excellence (HQ AFCEE/EQT), Brooks AFB, TX, DSN 240-4964, who concurred with our findings that the SWMP must be updated and approved annually by the EPC or the Environmental Safety and Occupational Health Committee. Ms. Carper further stated that AFR 91-8 was rescinded in May 1990, and has not been replaced.

TI 22966 - Disposal of Oxygen Generating Units

By Natalie Pogue

A customer requested information on the proper disposal of Oxygen Generating Units (OGUs), National Stock Number (NSN) 4240-01-217-0046. The customer specified the OGUs are non-detonated OGUs and condemned due to inspection or are past their 15 year shelf life.

PRO-ACT searched the Hazardous Material Information System (HMIS) database and located the manufacturer of the customer's OGUs. We then contacted a representative from the company to request a current Material Safety Data Sheet (MSDS). A review of the MSDS indicated disposal considerations in Section 13, which states, "Generators must be spent prior to disposal. Due to barium within the generator it is considered a hazardous waste even after it is spent. The spent unit must be disposed of in accordance with all regulations. The Oxygen device also contains Lithium Hydroxide which is a class 8 - Corrosive (UN2680)." Therefore, to properly dispose of the OGUs, they must first be expended and then disposed of as a hazardous waste. We also provided the customer with specific disposal recommendations from the manufacturer.

Finally, we contacted the C-130 Systems Program Office, Warner Robins Air Logistics Center (WR-ALC), Robins Air Force Base (AFB), DSN 468-5375, who had no further recommendations and concurred with the manufacturers method of disposal.

TI 23015 - Fuel Spill Cleanup Using Microbes
By Carl Lehman

PRO-ACT responded to a request for information concerning the use of microbes to clean up small fuel spills. The customer wanted to know what processes/products are available and if the Air Force recommends or approves any specific ones.

We contacted Mr. Jim Gonzales, Technology Transfer Division, Headquarters Air Force Center for Environmental Excellence (HQ AFCEE/ERT), DSN 240-4324, who stated the Air Force has not indorsed the use of any microbial products or processes for cleaning up fuel spills. He further stated the Air Force and HQ AFCEE recommend bioventing for fuel spills on soil, and natural attenuation for fuel in ground water. Mr. Gonzales cited studies conducted by HQ AFCEE, Livermore Laboratories, and the University of Texas which have determined most fuel spills in ground water spread less than 300 feet; therefore, natural attenuation with microbes native to the area of the spill are best suited to remediating the spill.

In addition, we provided the customer with copies of the following information sheets obtained from the HQ AFCEE World Wide Web (WWW) site at http://www.afcee.brooks.af.mil/er/erhome.asp which discuss bioventing and natural attenuation:

1. "Bioventing"
2. "Bioventing Proving to be an Old Reliable Standby Technology" and
3. "Monitored Natural Attenuation."

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